

Crystal Oscillator

Model Name NH20M20LA Oven-Controlled Crystal Oscillator (OCXO) for Fixed Communication Equipment

Main Application

- Mobile communication base station
- Measuring instrument
- Synthesizer
- Exchanger
- High-end router

Features

- Compact, with a low height.
- Excellent rise characteristics.
- Excellent phase noise characteristics.
- Excellent aging characteristics.



RoHS Compliant
Directive 2002/95/EC

Specifications

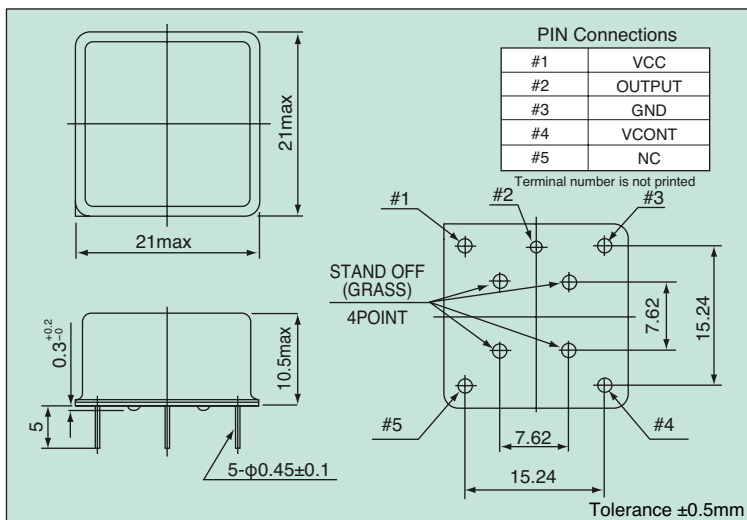
Item	Measurement condition	Model	NH20M20LA
Standard nominal frequency (MHz)			10, 38.88
Power supply voltage			DC +5V
Power consumption			3 W max. at the start and 1.5 W max. when stable (+25°C)
Output level			HCMOS (V_{OL} : 0.5V max., V_{OH} : 4.5V min.)
Load			15pF
Duty Cycle (1/2V _{cc})			45 to 55%
Operating temperature range			-10 to +70°C
Frequency stability	Frequency warm-up characteristic	+25°C three minutes after power is on	$\pm 500 \times 10^{-9}$ max.
	Aging	Based on frequency after 30 days operation	$\pm 10 \times 10^{-9}$ /day max.
		Based on frequency after 30 days operation	$\pm 500 \times 10^{-9}$ /year max.
	Frequency / temperature characteristic	-10 to +70°C	$\pm 200 \times 10^{-9}$ max.
	Power supply variation characteristics	DC +5V \pm 5%	$\pm 50 \times 10^{-9}$ max.
Frequency control characteristic	0 to +5 V, positive polarity		$\pm 5 \times 10^{-6}$ min.

Reference Value

Phase noise (@38.88MHz)	Offset frequency	dBc/Hz
	1 Hz	-60 max.
	10 Hz	-90 max.
	100 Hz	-115 max.
	1k Hz	-135 max.
	10k Hz	-145 max.

The value of phase noise changes when the frequency changes.

Dimensions



List of Options

Operating temperature range	-30 to +70°C
Power supply voltage	DC +3.3V
Nominal frequency (MHz)	10 to 38.88

For details of options, please feel free to contact our sales representatives.

List of Ordering Codes

Frequency (MHz)	Ordering Code
10	NH20M20LA-10M-NSA3421A
38.88	NH20M20LA-38.88M-NSA3421A

The above frequencies are NDK's standard frequencies. Frequencies other than the above are available. Feel free to contact our sales representatives.